

NARRATIVE REPORT

SAN FRANCISCO BAY

SAN FRANCISCO BAY
NATIONAL WILDLIFE REFUGE COMPLEX

REPORT

FISCAL YEAR 1974

INTRODUCTION

SAN FRANCISCO BAY

1. BACKGROUND

2. PURPOSE

3. SCOPE

4. METHODS

5. RESULTS

6. CONCLUSIONS

7. REFERENCES

The tremendous interest in and support for the refuge proposal ultimately resulted in the enactment of Public Law 92-330 on June 30, 1972. This Act authorized and directed the Secretary of the Interior to establish a refuge not to exceed 23,000 acres in south San Francisco Bay by June 30, 1977. Further, it authorized a refuge composed of four units (Mowry Slough, Fremont, Greco Island and Alviso) and placed a ceiling of \$9,000,000 on acquisition costs and a limitation of \$11,300,000 for the carrying out of the other provisions of the Act.

3. Management Units

The location and boundaries of the proposed refuge are depicted in Figure I. This represents a revised boundary recommended by the Refuge Manager and subsequently approved at all levels. Five major habitat types are represented in the four refuge units: salt ponds, salt marshes, upland, tidal mudflats and open water. Table I lists the approximate acreages and percentages of each type collectively and separately by unit.

a. Fremont Unit

The unit's east boundary abuts Coyote Hills, a promontory averaging 200 feet above the bay floor. Coyote Hills Slough (Alameda County Flood Control Channel) marks the north boundary and the east approach to the Dumbarton Bridge (Highway 84) the south boundary.

b. Mowry Slough Unit

The eastern approach to the Dumbarton Bridge forms the northern boundary of this unit. The eastern boundary follows an irregular course along salt pond levees for the most part. The southern boundary is the Southern Pacific Railroad right-of-way, and the western boundary an irregular line which roughly follows the outer edge of the tidal flats in the bay proper.

SAN FRANCISCO BAY NATIONAL WILDLIFE REFUGE

UNITED STATES
DEPARTMENT OF THE INTERIOR

ALAMEDA, SAN MATEO, AND SANTA CLARA COUNTIES, CALIFORNIA

FISH AND WILDLIFE SERVICE

R3W

122°10'

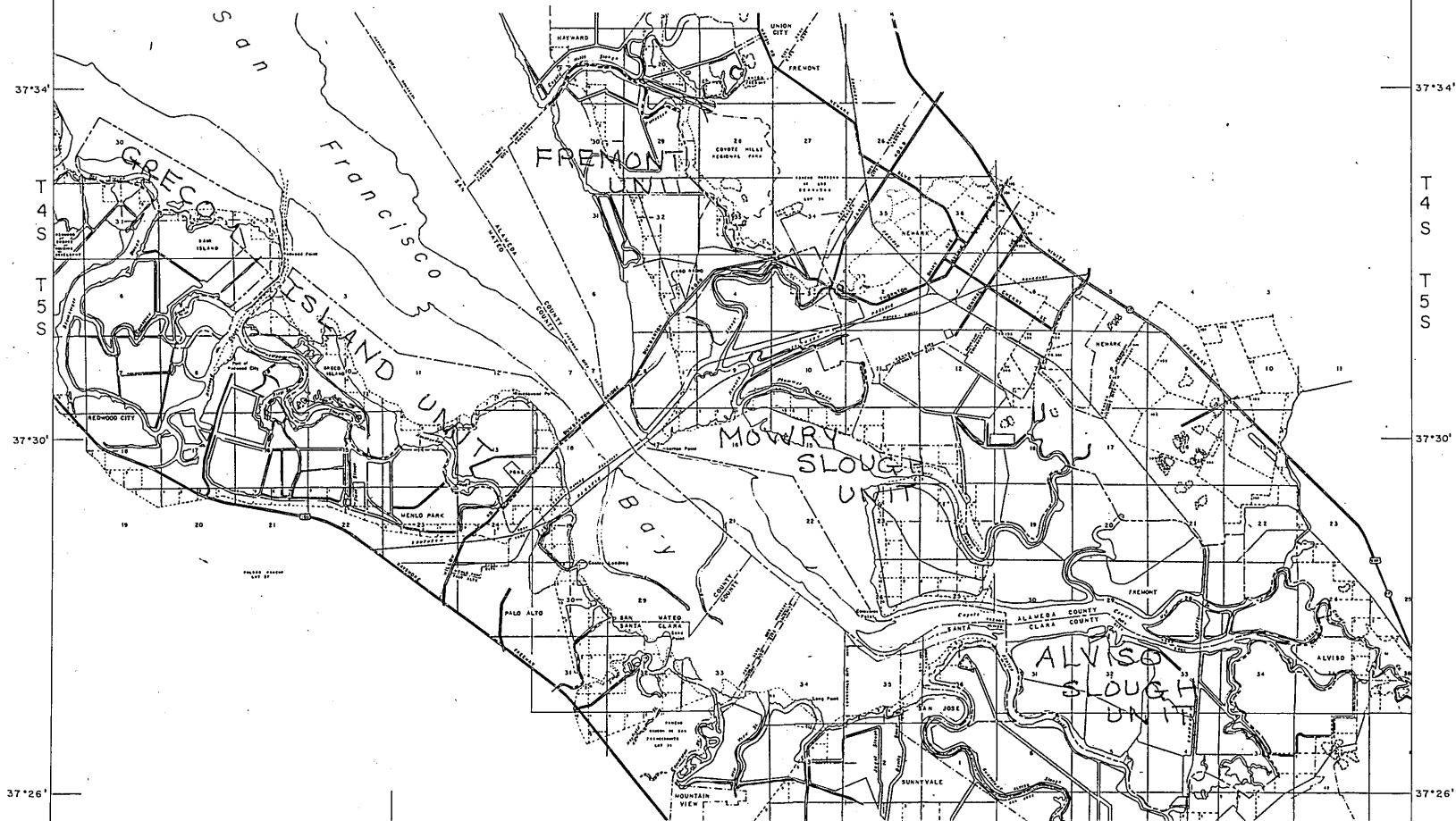
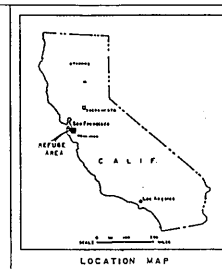
R2W

122°00'

LEGEND

----- PROPOSED REFUGE BOUNDARY

FIGURE I



COMPILED IN THE DIVISION OF ENGINEERING
FROM SURVEYS BY U.S.G.S., B. L. M.

PORTLAND, OREGON

SEPTEMBER, 1974

MT. DIABLO MERIDIAN
Scale 0 20 40 80 120 160 CHAINS
0 1/4 1/2 1 1-1/2 2 MILES

122°00' RIW
TOWNSHIP
DIAGRAM

TRUE NORTH
MAGNETIC N

MEAN
DECLINATION
1971

IR CALIF

423

TABLE I

ACREAGE BY UNIT AND HABITAT TYPE
 SAN FRANCISCO BAY NATIONAL WILDLIFE REFUGE
 (As Revised and Approved August, 1974)

Unit	Salt Ponds	Salt Marsh	Tidal Mudflats	Upland	Open Water	Total	Percent of Total
Fremont	2,857	141	1,393	20	0	4,411	19.2
Greco Island	574	1,570	2,780	40	0	4,964	21.6
Mowry Slough	4,843	2,011	1,690	65	213	8,822	38.4
Alviso	<u>3,340</u>	<u>814*</u>	<u>509</u>	<u>7</u>	<u>80</u>	<u>4,750</u>	<u>20.8</u>
	11,614	4,536	6,372	132	293	22,947	100.0
	(50.6%)	(19.7%)	(27.8%)	(0.6%)	(1.3%)		

* (234 brackish)

c. Alviso Unit

This unit is comprised of a complex of salt ponds, the Knapp property, the "New Chicago" and Tri-angle" Marshes, Artesian Slough, and associated tidal flats and marsh fringes. Artesian Slough (east bank) and Grand Boulevard form the eastern boundary, a line through Coyote Creek and Mud Slough the northern boundary, the spur line railroad the southern boundary, and Alviso Slough and the Knapp property the western boundary.

d. Graco Island Unit

The unit is bordered on the north and east by mudflats and the west approach to the Dumbarton Bridge delineates the unit on the south. West-point and Ravenswood Sloughs and a meandering line across Bair Island form the western boundary.

SAN PABLO BAY NATIONAL WILDLIFE REFUGE

San Pablo Bay National Wildlife Refuge was officially included in the San Francisco Bay National Wildlife Refuge Complex on September 1, 1973. Administration of the refuge was transferred on that date from the Vallejo office to the Fremont headquarters of the San Francisco Bay Complex.

FARALLON NATIONAL WILDLIFE REFUGE

Refuge staff met with the Executive Director of the Point Reyes Bird Observatory (PRBO) on several occasions to update and clarify operating procedures under the cooperative agreement for the Farallons. Closer contact with PRBO over the report period has resulted in improved cooperation from their staff in respecting Fish and Wildlife Service control on the islands.

Helicopter landings and other projects of the U. S. Coast Guard were discussed by refuge staff and Coast Guard administrators. An increase in Coast Guard awareness of and respect for the sensitivity of wildlife populations on the Farallons has resulted in improved cooperation with respect to flight patterns and maintenance schedules so as to minimize disturbance.

SALINAS LAGOON NATIONAL WILDLIFE REFUGE

The Salinas Lagoon National Wildlife Refuge (Monterey County) was established on excess military lands transferred to the Service through normal GSA procedures. Prior to acquisition the decision was made that fee title to the area of approximately 365 acres would ultimately be transferred to the Department of Fish and Game. Interior responsibility for the area was assigned to this office during FY 1974. When the area was transferred to the Service we "inherited" an artichoke farming operation on approximately 60 acres. A special use permit was issued to Toney Mendonca (who farms with James Panziera) authorizing continuation of the farming until May 30, 1974. The operation was finally terminated despite objections by the permittees and intervention by the local Congressman. At the end of the reporting period plans were to transfer administrative responsibility to Fish and Game under an interim cooperative agreement.

II. WILDLIFE

SAN FRANCISCO BAY NATIONAL WILDLIFE REFUGE

A. Migratory Birds

Extensive bay area California clapper rail censuses were conducted during the extreme high tides in December, January and February. There were 126 rails counted on the proposed refuge and 500 observed baywide. Of special interest was the sighting of 3 black rails, a species rarely observed in bay marshes.

In June a ground census was made of species nesting on Bair Island. The Caspian tern colony included 92 scrapes with eggs. Great blue heron, snowy egret and black-crowned night heron nests numbered 21, 700 and 375 respectively.

There were 5 to 10 California least tern nests observed on the State managed lands on Bair Island.

B. Fur Animals

A peak of 318 harbor seals was observed on the Mowry Slough hauling grounds on April 25.

SAN PABLO BAY NATIONAL WILDLIFE REFUGE

Clapper rail censuses on portions of the proposed refuge were conducted on four occasions. Only five rails were located, all along Sonoma Creek.

A February 27, 1974 aerial census of the area revealed 7,640 canvasbacks and 2,300 puddle ducks (mostly shoveler and green-winged teal).

FARALLON NATIONAL WILDLIFE REFUGE

A. Migratory Birds

Three rhinoceros auklet pairs nested on the Farallons in 1974. Sightings of this species were noted previously but no nesting had been confirmed. An estimated 30 pairs of tufted puffins nested on Southeast Farallon, with several pairs utilizing the rock cavities built during the period to increase their available nesting habitat. Other seabird nesting was similar to previous seasons.

B. Other Mammals

With increased protection on the islands, marine mammal populations continued to increase. A total of 17 northern elephant seal pups were born in the winter of 1974

as compared to 3 in the previous season. Unfortunately, only 5 of these pups survived to weaning. The low survival rate may have been partially attributable to disturbance by island personnel which caused the elephant seal population to concentrate in a small cove. Many pups were unable to associate with their cow in this high density situation and succumbed to starvation or to wounds inflicted by other cows.

A California sea lion pup born on the Farallons was a new record and apparent northern extension of the breeding range of this species. Harbor seals, including a pup, were sighted regularly. A northern fur seal also utilized the island. This species was exterminated from the Farallons over 100 years ago and had not been recorded there since.

A concerted effort to eliminate the introduced European hare from the Farallons commenced in the fall of 1973. Both Refuge and PRBO staff participated and the last rabbit was apparently removed in the summer of 1974. These animals had been removing the sparse vegetation that existed on the islands, most of which was needed for cormorant nesting, and had also usurped burrows normally used by underground nesting birds.

C. Raptors

Three peregrine falcons (one male and two females) remained on the islands for nine months, but departed in May rather than remaining to nest.

III. REFUGE DEVELOPMENT AND MAINTENANCE

SAN FRANCISCO BAY NATIONAL WILDLIFE REFUGE

A. Physical Development

Boundary posting was completed on the 164-acre New Chicago Marsh tract near Alviso and on Bair Island lands leased from Mobil Oil.

A cooperative agreement was executed between the Service and Mobil Oil Estates Limited to provide refuge status to a sensitive bird nesting area on Bair Island prior to the actual acquisition of the land. The leased area includes the only wading bird rookery in south San Francisco Bay and the second largest on the entire bay.

A massive six-weekend, all volunteer project designed to remove unsightly litter and debris from the proposed refuge area was most successful. An estimated 236 tons of trash were collected and hauled to approved disposal sites by a total of 703 individuals. The event received excellent television and newspaper coverage. As a memento and token of appreciation, a multicolored embroidered shoulder patch was designed and issued to each volunteer.

B. Management Development

A comprehensive Environmental Impact Assessment for the San Francisco Bay National Wildlife Refuge (acquisition phase) was prepared by the refuge staff resulting in a negative declaration by the Regional Director.

A contract was executed with EDAW, Inc., providing for preparation of a comprehensive plan for the refuge. The contract, in the amount of \$50,750, covers Phases I and II of the three-phase planning process. Phase I (Resource Inventory) was completed by EDAW this fiscal year.

A detailed briefing report on the Leslie Salt Co. and on the salt production operation on San Francisco Bay was prepared and submitted to the Regional Office. Recommendations for the operating agreement covering salt production subsequent to refuge acquisition were also included.

A biological ascertainment report on excess property at Moffet Field (NAS) was completed, but the property, which contains a large Forster's tern nesting rookery, had not been transferred at the end of the reporting period.

SAN PABLO BAY NATIONAL WILDLIFE REFUGE

The first acquisition for the refuge occurred on February 6, 1974, when title to the Figueras tract was officially vested in the United States. This tract, which comprises 185 acres of pickleweed marsh and diked former marshland, is located immediately adjacent to the western boundary of Mare Island. No further condemnation actions were completed during the report period and no other acquisitions were made.

Lease arrangements providing refuge status for State-owned tidelands were not completed as had been anticipated. The delay was due mainly to the reluctance of the State Lands Commission to transfer authority over gas and oil drilling to the Service. Known gas reserves exist in the north bay and the Service needs authority to control drilling operations in the refuge area should leases be executed in the future.

Two excess tracts located near Mare Island (North Housing Area and Guadacanal Village) were considered for administrative sites for the refuge. After onsite inspection and preparation of acquisition reports on these two tracts, refuge and regional office personnel met several times with Vallejo City officials re the City's desire to acquire one or both of the tracts. In May 1974, the Service decided to acquire the Sonoma Ranch, which includes an administrative site, and disclaimed all interest in both excess tracts.

The State Highway Department has stated that plans to 4-lane Highway 37 have been deferred for at least 20 years. The additional lanes were originally scheduled to take a strip from the northern edge of the refuge marsh. Mitigation in the form of donation to the refuge of 400 acres of Leslie ponds and marsh north of the highway was contemplated. The Interchange for State Highways 37 and 121 has been scheduled for the 1980's, but is designed so that no refuge lands will be required.

Biological ascertainment reports on the Petaluma Marsh and Sonoma Ranch (Upper Tubbs Island) were prepared and submitted to the Regional Office.

IV. FIELD INVESTIGATION OR APPLIED RESEARCH

SAN FRANCISCO BAY NATIONAL WILDLIFE REFUGE

In March a management study outline was submitted for a population status study of the endangered salt marsh harvest mouse. The objectives are threefold: (1) to determine locations of populations of the two subspecies of salt marsh harvest mice endemic to the San Francisco and San Pablo Bays; (2) to develop a practical technique for inventorying populations; and (3) to monitor populations and habitat parameters in selected representative marshes. Field investigations commenced in May.

In April, refuge personnel assisted California Department of Fish and Game officials on two occasions in collecting eggs from the Bair Island rookery for pesticide analysis.

In May, a survey of Bair Island was made to determine the extent of rat depredation on black-crowned night heron nests. Approximately 35 percent of nests had been depredated. Control methods for use on the island were investigated, in conjunction with Wildlife Services.

In June the San Francisco Bay song sparrow contract was executed with Mr. Brian Walton, San Jose State University. This study will determine the population status, distribution, and habitat requirements of endemic San Francisco Bay song sparrows.

FARALLON NATIONAL WILDLIFE REFUGE

Ultramarine Corporation submitted a research grant proposal to develop a wind-powered energy system on the Farallons to the National Science Foundation. No decisions had been made by the NSF as to the distribution of grants for wind energy studies at the close of the period. The use of wind energy would result in the saving of several thousand dollars annually plus reduce fuel oil consumption.

PRBO staff continued to conduct all research on the Farallons under the cooperative agreement with the Service. Seven papers or notes were published on birds and one on elephant seals.

V. PUBLIC RELATIONS

SAN FRANCISCO BAY NATIONAL WILDLIFE REFUGE

A. Refuge Participation

Refuge personnel devoted considerable time to public relations activities during the year.

A most appreciated gesture of goodwill by the Leslie Salt Co. was its inclusion of the refuge in its plant tours. These tours are conducted to acquaint public officials, business and community leaders, and the press with current operations and policies of the company as they affect the public of the bay area. This, of course, provides the refuge an excellent opportunity to acquaint those listed above with the refuge.

Coverage of refuge plans and activities by the news media was excellent. Public exposure was provided through seven television spots, six radio spots, and dozens of newspaper articles. Cooperation by the press was excellent.

As senior representative of the Fish and Wildlife Service in the area, the Refuge Manager was appointed to the San Francisco Federal Executive Board.

Chairman John Dingell, along with members and staff of the House Subcommittee on Fish, Wildlife and the Environment, visited the bay area on a fact-finding trip during August. The Refuge Manager, along with other Service personnel, participated in making local arrangements and briefing the contingent on August 22. An aerial reconnaissance of the bay was arranged to illustrate problems and progress to the group.

B. Violations

Helicopter harassment of the rookery on Bair Island remained a problem, particularly with some of the land

being under State control and therefore without minimum ceiling restrictions. Certified letters concerning this problem were sent to local helicopter services, airport managers and enforcement agencies. These letters, along with several personal contacts, resulted in termination of the overflights.

SAN PABLO BAY NATIONAL WILDLIFE REFUGE

A. Hunting

A preliminary hunting plan for San Pablo Bay Refuge was formulated in response to pressures from the San Pablo Bay Sportsmen and their attorney. This group also pressured the California Department of Fish and Game to keep all tidelands in the refuge, particularly those adjacent to Lower Tubbs, open to hunting. The preliminary plan calls for allowing waterfowl hunting over most of the tidelands with four small closed areas to serve as buffers for other types of public use. One of the closed zones is adjacent to Lower Tubbs which is expected to be heavily used for interpretation, wildlife observation, and environmental education. This conflict was not resolved during the report period.

FARALLON NATIONAL WILDLIFE REFUGE

A. Refuge Participation

Professor Mahaffey of Sacramento State College used the Farallon wilderness proposal as a case study in a textbook chapter concerning the researching and preparing of reports on topics of public interest.

John Cowan of California Department of Fish and Game and Lyman Fancher, a graduate student at California State-Hayward, accompanied by Assistant Manager Lindeman, spent five days on the Farallons taking pictures for a refuge film on the islands.

B. Violations

Violations continue to be a problem since no enforcement personnel are located on the islands. Two incidents of shooting at marine mammals were not prosecuted since only the boat and not the offending person could be identified. No convictions were obtained on aircraft ceiling violations although several were observed. Letters warning against low overflights of a national wildlife refuge were sent to the FAA, and all local military air bases and civilian airports in an attempt to reduce disturbance to nesting colonies. Violations of State regulations were coordinated with appropriate State representatives.

VI. OTHER ITEMS

SAN FRANCISCO BAY NATIONAL WILDLIFE REFUGE

A. Items of Interest

With the transfer of the Manager of the Farallon and San Pablo Bay Refuges in late August, both refuges were merged with the San Francisco Bay National Wildlife Refuge to form a bay area refuge complex.

B. Publications

A "flip type" bird list for the San Francisco Bay Refuge including 248 species was developed with the assistance of 12 professional ornithologists and experienced south bay birders.

C. Personnel

Elisabeth Lindeman reported for duty as Assistant Manager on November 6, 1973. Ms. Lindeman transferred from Loxahatchee National Wildlife Refuge in Delray Beach, Florida.

D. Cooperation

A joint Federal-State task force was organized to insure full coordination of all activities relating to acquisition of the San Francisco Bay National Wildlife Refuge. Co-chairmen of the task force are Mr. Web Otis (Special Assistant to the Secretary, USDI) and the Secretary of the State Resources Agency. The Refuge Manager was appointed the Federal Executive Secretary and Mr. Paul Clifton to the same position for the State. The organizational meeting of the full task force was held on July 30, 1973, and two subsequent meetings of a portion of the group were called. By design, the task force operates on an informal basis and meets only as conditions demand.

In order to better coordinate research activities and to provide greater attention to fish and wildlife problems on the estuary, an ad hoc committee was formed. Dr. Howard Shellhammer, San Jose State University, was appointed chairman of the "Bay Wildlife Study Committee" whose membership consists of representatives from the refuge staff, San Jose State, Corps of Engineers, and the California Department of Fish and Game. It was agreed that the refuge office will serve as a depository for literature, maps, etc., relating to the ecology of the bay.

A meeting was held with mosquito control representatives from San Mateo, Santa Clara, and Alameda Counties and the California Department of Public Health to explore potential conflicts between refuge development and management and mosquito control. No serious problems are anticipated.

The Refuge Manager was appointed to the ad hoc committee on the endangered Santa Cruz long-toed salamander. This committee met several times to explore acquisition needs and management plans for the State-owned Valencia Lagoon and Ellicott Slough habitats. Ms. Lindeman was also quite active on this project.

A concerted effort was made to remain abreast of, and in some cases influence decisions, concerning developments

which might directly or indirectly affect the refuge. This involved many contacts and participation in innumerable meetings. Examples of such projects are the Dumbarton Bridge replacement project, South Bay Dischargers project, PG&E transmission line construction, Port of Redwood City expansion, etc. In this vein the Manager served as an ex-officio member of two citizens advisory committees, i.e., the Redwood City Waterfront Committee and the Citizens Advisory Committee on the Guadalupe River and Adjacent Streams (Santa Clara County).

Technical assistance concerning management and development of wetlands was provided to the Cities of Fremont and Palo Alto and to the Marin County Department of Parks and Recreation.

APPROVED, REGIONAL OFFICE

SUBMITTED BY

Signature

Title

Date

Walter O. Stieglitz

Signature

Refuge Manager
Title

March 12, 1975
Date